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A Grounded Theory Approach to Healthy Work Environment: Its Impact on Nurses, Patient Safety, and Significance in Healthcare Settings

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UNIVERSITY OF SAN DIEGO
Hahn School of Nursing and Health Science
DOCTOR OF PHILOSOPHY IN NURSING

A Grounded Theory Approach to Healthy Work Environment:
Its Impact on Nurses, Patient Safety, and Significance in Healthcare Settings

By

Nicole Sevilla-Zeigen, RN, MSN, MBA, MHCM

A dissertation presented to the
FACULTY OF THE HAHN SCHOOL OF NURSING AND HEALTH SCIENCE

UNIVERSITY OF SAN DIEGO

In partial fulfillment
of the requirements for the degree
DOCTOR OF PHILOSOPHY IN
NURSING

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UNIVERSITY OF SAN DIEGO
Hahn School of Nursing and Health Science
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TITLE OF DISSERTATION: A Grounded Theory Approach to Healthy Work
Environment: Its Impact on Nurses, Patient Safety, and
Significance in Healthcare Settings

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Abstract

A healthy working environment (HWE) for healthcare providers, including registered nurses (RNs), is an important area of research. It is posited that a HWE improves patient safety, which is associated with a reduction in clinical nurse errors. The purpose of this qualitative study was to provide a broad understanding regarding nurses' perceptions on the processes that influence an HWE and the impact of an HWE on patient safety. An interpretive grounded theory methodology was used in this study to evaluate nurses' perceptions in acute care settings. The study was carried out in a large city of southern California, and the participants consisted of a community-based purposive sample of RNs with at least three years working experience in acute care surgical units. A total of 9 participants were included and a tiered scheduled approach was used for the analysis and refinement of interview questions. All participants were female. The majority of the participants had a bachelor's degree (44%), master's degree (22%) and 11 % had an associate's degree. Grounded theory method was used to identify the relevant themes from the interview responses. The data reveal nurses' perceptions on the process that facilitate an HWE and the impact of an HWE on patient safety. A major finding of the study was a perception that communication, teamwork, and collaboration within the healthcare environment are the most important factors for the development of an HWE. Additional findings included perceptions that a healthcare working environment is related to reduced medication errors. Participants reported that lack of communication, nurse shortages, and micromanagement increase the chance of medication errors. Participants reported that effective communication with nurse leaders, managers, and patients provides a stress-free working environment that results in a better care for patients.

Finally, sufficiency of nursing staff along with engagement in teamwork and collaboration were perceived as major influences on patient safety. These data suggest that future study of the relationships between these factors have the potential to enhance an understanding of factors promoting an HWE.

Copyright

Dedication

I want to dedicate this to all the working nurses who have experienced working in an unhealthy environment, and who have suffered incivility from their peers, leaders, physicians, and patients. I thank you for your dedication in always putting your patients first and providing the best care possible.

Preface

Allow Yourself

Allow yourself to dream,
And when you do dream big

Allow yourself to learn
And when you do learn all you can

Allow yourself to laugh
And when you do share your laughter

Allow yourself to set goals
And when you do reward yourself as you move forward

Allow yourself to be determined
And when you do you will find you will succeed

Allow yourself to believe in yourself
And when you do you will find self-confidence

Allow yourself to lend a helping hand
And when you do a hand will help you.

Allow yourself relaxation
And when you do you will find new ideas.

Allow yourself love
And when you do you will find love in return

Allow yourself to be happy
And when you do you will influence others around you.

Allow yourself to be positive
And when you do life will get easier.

Catherine Pulsifer

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It has been said that it “Takes a Village,” and in my case that was definitely proven true.

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feel like the Little Engine That Could; Yes I Can, Yes I can. Thank you, Dr. Georges.

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allowing me to use your qualitative study as a template for my own. Thank you, Dr.

Stacy.

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CHAPTER I

Introduction

Patient safety is a major concern in contemporary United States (US) healthcare, affecting both individual patient outcomes and the healthcare industry as a whole. Failure to ensure patient safety is associated with huge human and financial losses (Croll, Coburn, & Pearson, 2012). In the US, between 44,000 and 98,000 avoidable deaths occur every year due to errors within hospitals. Approximately 7,000 of these avoidable deaths are associated with medication errors alone (Peterson, 2012). Thus, the adoption of Healthy Working Environment (HWE) has been proposed as a potential factor to save human lives and reduce enormous financial costs associated with errors.

A healthcare setting can have a toxic environment characterized by long hours of working, mandatory overtime, high turnover, short staff, and lack of qualified staff (Janakiraman, Parish, & Berry, 2011). According to the Joint Commission on Accreditation of Healthcare Organizations (2008), the shortage of nurses is one of the major issues affecting hospital administrators and is associated with poor working conditions in the healthcare setting. In 2011, there was a high demand for nurses; about 115,000 nurses were needed to fill the available vacancies (Janakiraman et al., 2011). The issue of nurse shortage is getting worse and it is estimated the shortage will increase to 340,000 by 2020 (Janakiraman et al., 2011). An unhealthy working environment in healthcare settings has been cited as the reason that 25% of nurses leave their new jobs (Tucker, Harris, Pipe, & Stevens, 2010). This shortage contributes to nurse overload, which aggravates poor communication among the nurses and other staff due to pressure and fatigue (Blake, Gilmore, Dang, & Villareal, 2014). The overworked nurses have a

high tendency to make errors that affect the quality and safety of healthcare services.

Research reveals that working environment characteristics, such as perceived support from the supervisors, has a high positive impact on the employees' commitment (Tucker et al., 2010). The safety and quality of patient care are highly dependent on the working environment in which the nurses operate (Janakiraman et al., 2011). It is, therefore, important to provide nurses with a HWE to enhance the quality of patient-care.

Problem Statement

The environment in which an individual works and the overall work performance has been an area of interest for most occupational health professionals (Tucker et al., 2010). The status of the nursing environment affects the nurse's performance. Healthy environments are workable settings for nurses but unhealthy environments create discomfort that undermines the abilities of even the best nurses. This HWE can be attributed to the mental, emotional, and physical demands of the workplace. Nurses have cited long working hours, poor relationship with supervisors, and lack of proper medical equipment as factors contributing to an unhealthy work environment. Additionally, such unhealthy working environments are associated with increased mental illnesses among nurses (Tucker et al., 2010).

According to Tucker et al. (2010), 20%-30% of nurses have psychiatric comorbidities, and 8%-10% have addiction problems. Healthcare institutions report that sick leave has increased in recent years, and one-third of absenteeism is associated with work and the working environment (Janakiraman et al., 2011). These unhealthy work environments have been associated with an increase in errors in the healthcare setting. According to a 2012 estimate, The US spends \$19.5 billion dollars each year as the result

of healthcare errors (Ausserhofer et al., 2014). Thus, an HWE is essential for the reduction of healthcare errors. An HWE has been shown to increase nurse retention and job satisfaction, and minimize burnout (Ritter, 2011). According to Ritter (2011), healthcare settings should seek to understand the complex working environments and develop strategies that will improve the quality and safety of healthcare. Healthcare organizations that have safety cultures and work on evidence-based practice provide an HWE for the nurses and make continuous improvements on the culture of the organization (Aboneh, Look, Stone, Lester, & Chui, 2015).

The published reports cited above describe the impact of poor working environments on nurse turnover, job satisfaction, and patient safety. Nevertheless, while some documentation exists regarding patient outcomes following the adoption of HWE, little is known regarding what characterizes an HWE, and its influence on the nurses and patient safety. The proposed study was designed to fill this gap in knowledge by undertaking a qualitative, grounded theory approach to explore the perception of nurses regarding the characteristics of an HWE.

Background and Significance

A review of the published literature reveals a paucity of research into what constitutes an HWE for nurses and how its characteristics relate to patient safety. Most of the research has focused on the effects of poor working conditions on nurses' attitudes and perceptions as well as errors in nursing practice (Aiken et al., 2013). An HWE is essential for reducing errors in the nursing setting and more research in this area is necessary (Blake et al., 2014). Developing and maintaining a safe and healthy environment requires a high level of vigilance and compassion on the part of all

employees in healthcare settings. According to Aiken et al. (2013), an HWE enables an employee to live an economically and socially productive life. Healthy working environments have both direct and indirect impact on the safety of patients and a nurse's commitment. An HWE has been associated with increased nurse retention, job satisfaction, decreased burnout, safer healthcare practices, and better patient outcomes. An HWE is both collaborative and productive, constituting an environment in which the nurses and other healthcare staff are protected from psychosocial and physical harm (Aiken et al., 2013). In an HWE, nurses are able to maximize their abilities to offer safe and quality healthcare. They also have the ability to meet their personal needs since they are empowered to have a satisfying and fulfilling work experience. Negative work environments demoralize nurses and contribute to the development of unsafe working conditions, which are unhealthy and highly associated with nursing shortages, low productivity, and job dissatisfaction (Blake et al., 2014).

Janakiraman et al. (2011) conducted a study to evaluate the effects of work and physical environment on nurses' perceptions and attitudes of service quality. These researchers analyzed work environmental and physical factors on the basis of service quality and the commitment of nurses to the hospital. Data from the study reveal that physical factors such as safety, work space quality, and environmental factors such as communication and support from supervisors, have a positive impact on a nurse's perception of service quality and commitment to stay in the hospital. This dissertation research builds on the work conducted by Janakiraman et al. (2011), as it explores nurses' perceptions of what constitutes an HWE and its association with patient safety.

Purpose of the Study

The overall purpose of this qualitative study was to explore the perceptions of registered nurses (RNs) in acute care settings regarding the processes that shape an HWE and the impact on patient safety.

Research Questions

This grounded theory study addressed the following research questions:

1. What are the perceptions of registered nurses in acute care settings regarding the processes that shape an HWE?
2. What are the perceptions of registered nurses regarding the effects of an HWE on nurses and patient safety?

Conceptual Underpinnings

The conceptual underpinnings for this study were based on the grounded theory framework, which was developed by Glaser and Strauss (1967). This is a methodological approach that develops a theory through information gathered in the process of collecting data (Glaser & Strauss, 1967). This approach is usually dependent on the existing phenomena and how it emerges during the data collection process. Grounded theory was an appropriate methodological approach in evaluating the concept of the “healthy work environment” from the nurse perspective that has not been described in the literature. Qualitative research was used to explore the perceptions of nurses regarding HWE and fill the current gap in the literature regarding this phenomenon. Thus, a grounded theory approach was an appropriate first step in exploring the perceptions and personal experiences of nurses with regards to HWE.

Significance of the Study

Nursing research. Healthy working environments have been associated with reduced errors and enhanced patient safety. This study contributed to a more comprehensive understanding of the influence of an HWE on nurses and patient safety. Previous studies have focused on the effects of poor working conditions on nurses' attitudes and perceptions (Aiken et al., 2013). This research adds to the existing gap in literature on HWE from the perspective of nurses and provides a framework for further research in HWE.

Clinical practice. The findings from this research shed more light into the importance of HWE in reducing the high rates of avoidable deaths as a result of medical errors. An HWE has been associated with safe measures that reduce errors. The findings of this study provided concrete evidence on the impact of HWE in creating a safe environment that helped nurses to perform more efficiently. Future researchers may use the findings from this study to explore the relationships between the well-being of the nurses, other healthcare providers, and patient safety.

Nursing education. Findings from this study contribute to the existing documentation regarding nurses' perceptions of their work environment. Future researchers may use the findings to test a framework for creating HWE-promoting nursing curricula. The use of such a framework at both the baccalaureate and master's level would create a foundation for future nurse clinicians to incorporate HWE into their own nursing practice.

Conclusion

Nurses are crucial stakeholders in the healthcare setting and form the

cornerstone for quality patient safety. A patient is supposed to feel safe to enter into any healthcare setting and receive optimum care. Nurses spend most of their time in healthcare institutions providing healthcare services along with other healthcare providers. Nurses have a duty to ensure that patients receive quality medical care. The nurse's ability to meet healthcare demands is dependent on the healthcare work environment. Thus, HWE is a key concept that needs further research to enhance the nurse's ability to provide safe and quality care.

CHAPTER II

Review of the Literature

The purpose of this chapter is to provide a summary of the literature about HWE and patient safety. It will include studies to be critiqued that contained information related to: HWE, teamwork and collaboration in HWE, nursing work environment and patient experiences, patient safety and work environment, safety culture in the healthcare environment. An extensive review of literature related to an HWE in the last four years reveals that very few studies have focused on the processes that actually shape an HWE and its effects on the healthcare setting. The majority of research has focused on the poor working conditions in the healthcare setting (Aiken et al., 2013).

Healthy Work Environment

An HWE is productive and open to communication and collaboration among team members (Janakiraman et al., 2011). A healthy environment provides nurses with the chance to work freely under minimal pressure and maximizes on providing safe and quality health care services (Tucker et al., 2010). It is very important to maintain a safe working environment for the well-being of the nurse and for patient welfare. Creating a safe work environment requires an understanding of the causes of errors and applying the knowledge in developing new systems that will minimize the errors (Djukic, Kovner, Brewer, Fatehi, & Cline, 2013). The policy makers, researchers, and other healthcare providers are currently engaged in intense efforts to gain a thorough understanding of the organization conditions, processes, and components of healthcare system that are related to patient safety (Carayon et al., 2014).

In the US economy, nursing is classified as one of the largest occupations with

2.4 million jobs (Tucker et al., 2010). Reports by the International Council of Nursing indicate that a current shortage of nurses in the healthcare system is due to the working environment (Janakiraman et al., 2011). Creating HWEs for nurses has been associated with more students deciding to pursue a career in nursing. An HWE also encourages healthcare professionals to develop innovative models that enhance patient healthcare delivery. The creation of an HWE may also lead to and safe patient care (Tucker et al., 2010).

In US healthcare settings, the turnover in nursing ranges from 15%-36% in a given year (Ausserhofer et al., 2014). The cost of replacing an RN is approximately \$30,000 to \$50,000, revealing the high costs related to the nurses' high turnover (Ausserhofer et al., 2014). This high cost demonstrates the importance for healthcare organizations to create a healthy and stable work environment that is associated with enhanced patient safety. Kramer, Halfer, Maguire, & Schmalenberg (2014), assert that healthcare organizations should particularly focus on understanding the complex environments and develop strategies that will promote safe and high-quality patient care. They also state that creating favorable and healthy environments is essential for nurses who are primarily responsible for the shortcomings in healthcare standards.

The healthcare services provided by nurses are carried out in an environment that is characterized by many factors, such as policies, procedures, and technology (Janakiraman et al., 2011). The interactions of these factors sometimes lead to harmful outcomes described as errors. A human error is the failure of an individual to perform the planned action as expected or using the wrong plan to get an outcome (Ausserhofer et al., 2014). According to Thomas and Classen (2014), errors are cognitive activities of human

activity. The authors further assert that errors can result from system factors that arise from immediate events or latent factors, such as workload, organizational structure, and work environment. Leaders and staff can create latent factors in the scheduling, lack of adequate training, and use of outdated equipment. Organizations need to adapt an environment that addresses these latent factor defects that are the root cause of errors in an organization (Kramer et al., 2014). Several studies have established the work environment as a key determinant of patient care in healthcare settings. Djukic et al. (2013), conducted a study to examine factors other than staffing that are related to patient quality care ratings by the nurses. A cross-sectional approach was used to collect data from RNs in the US and logistic regression was used to analyze the data. The findings indicated significant relationships between nurse and physician, workgroup cohesion, organizational constraints, and physical work environment. All these factors were found to influence quality care. Job satisfaction and hospitals that have employed the magnet model were shown to be related significantly to quality care.

A study carried out by Barnes and Lefton (2013), documented that nurses may feel more fulfilled in their profession if the organizational structure is changed to enhance independent practice environments, recognition of professional status, and provision of financial incentives. The uneven distribution of nurses and the nurse shortage results in stressful conditions for nurses. As workload increases, nurses may fail to perform to their very best (Tucker et al., 2010). These factors associated with poor work conditions have a huge impact on the outcomes of patients. Therefore, nurses must be provided with adequate staffing and training to work effectively in their work environment.

A healthy environment should promote specific factors that improve the nurses' quality of care and the outcomes of healthcare systems. These factors include: evidence-based practice, collaboration and teamwork, safety, and patient-centered care (Blake et al., 2007). Research by Barnes and Lefton (2013), revealed that power, opportunity, and composition of the workforce have an impact on what the nurse can do and how they utilize the available resources to meet the patient's needs.

Blake, Leach, Robbins, Pike, & Needleman (2013) conducted a study to evaluate the impact of HWE on the turnover rates of RNs. The study employed a descriptive cross-sectional design in which pediatric RNs from 10 different intensive care units were required to fill out a practice environment scale questionnaire. The nurses were questioned on whether they would leave their jobs in the next six months. Correlational analysis was used to analyze the results in which a total of 415 RNs completed the questionnaires. The results revealed that a perception of good leadership had an influence on the nurses' work environment and their intentions to be retained in their work place. The findings also revealed that nurses' empowerment is associated with greater responsibilities and influences the relationship with the nurses' commitment to the healthcare organization. Job advancement was also associated with job autonomy, decision-making abilities, and work satisfaction (Blake et al., 2013). The study findings indicated a correlation between nurses mix of skills with medical errors, long stays in hospitals, and high healthcare costs. Under-staffing was related to adverse patient outcomes due to medical errors (Blake et al., 2013). Such medical errors compromise the patient's safety, resulting in poor patient outcomes (Sammer, Lykens, Singh, Mains, & Lackan, 2010).

Blake et al. (2013) assert the work environment has an influence on the nurses' perceptions of receiving support at work and feeling appreciated. Thus, nurses should be empowered to manage their nursing practice, form collaborative teams, and carry out their nursing practice under optimal conditions. According to Barnes and Lefton (2013), structural empowerment has a positive effect on the nurses' experiences in providing quality care in the work environment. These researchers found that empowerment of nurses in the workplace is related to nurses' sense of competence, positive interactions with other healthcare professionals and patients, and a perception of a high level of knowledge and credibility (Barnes & Lefton, 2013).

A healthy work environment is posited to be related to the inclusion of evidence-based practice. Vincent, Hastings-Tolsma, Gephart, and Alfonzo (2015) described the importance of using evidence-based practice to improve the quality of care. These researchers assert the application of evidence-based practice can reduce medical errors. The adoption of an evidence-based practice provides enhanced clarity in proper enforcement of the policies, procedures, and work environment of a healthcare organization (Vincent et al., 2015).

The most challenging task of healthcare organizations is to embrace change with the purpose to create better working conditions. As a consequence, these organizations need to be flexible and accept the proposed changes by adopting innovations and knowledge relating to patient care (Barnes & Lefton, 2013). Such overall changes in the work environment involve the managers, leaders, and staff. The nurses and other healthcare providers need to redesign the processes involved in healthcare and the responsibilities of the team members. Faden et al. (2013) emphasize that recognizing

change is important. Healthcare organizations should understand that this is a complex process requiring commitment and improvement strategies. In enacting such change, healthcare organizations should provide an initial focus on preventing and creating awareness on errors as a starting point.

Kelly, Kutney-Lee, Lake, & Aiken (2013) conducted a cross-sectional study that assesses the healthcare environment and the frequencies of pneumonia, urinary tract infections, and central catheters infections. The study used logistic regression models to determine if the work environment was predictive of the occurrences of infections. The findings showed that the presence of and HWE was significantly predictive of reduced cases of infections among patients.

Teamwork and Collaboration in a HWE

One person alone cannot improve the quality of healthcare in an organization. The concept of HWE has as an underlying assumption that patient safety involves teamwork and effective communication (Blake et al., 2013). The Joint Commission (2008) has indicated that 60% of poor communication is the primary cause sentinel events that are reported in nursing environments (Janakiraman et al., 2011). Ineffective communication and related problems lead to misunderstandings, wrong delivery of information, or loss of information.

The most effective strategies to improve collaboration in the workplace include intra-professional and inter-professional teamwork (Blake et al., 2013). Intra-professional and inter-professional collaboration are essential components of HWE. The collaboration skills nurses utilize in and HWE include adaptability, flexibility, leadership, and collaborative performance monitoring. Teamwork and cooperation help healthcare

organizations to minimize errors. Kramer et al. (2012), conducted a study to examine the relationship between the healthcare unit's environment and retention of the RNs. This study involved an evaluation of the retention rate of new RN graduates in 28 different hospitals. The results showed that education and patient population had no effect on the retention rate of new graduates. However, the quality of the work environment was significantly related to retention rate of new graduates. New RN graduates placed in healthcare environments requiring improvements had a higher rate of resignation than those placed in HWEs (Kramer et al., 2012). These findings demonstrated that HWE was the *most* crucial factor in retaining nurses in a hospital. When nurses and clinicians work as a team with standardized and well-planned processes, the chance of errors is decreased and patient safety is increased (Kramer et al., 2012). In such a setting, each team member knows his or her responsibilities and monitors each other's performance, thus preventing the occurrence of errors. Teamwork and collaboration create an HWE, where members can assist each other and provide feedback when necessary (Kramer et al., 2012). Team members can distribute responsibilities when the need arises and also share the workload. This flexibility prevents overwork of nurses, which leads to exhaustion and increases the chances of making errors.

Nørgaard et al. (2013), showed that providing formal training to healthcare professionals was particularly significant since it helps them understand how to work with efficiency in multidisciplinary teams. Formal training can help professionals attain high reliability with patients and minimize adverse effects. According to Blake et al. (2013), poor communication and lack of collaboration within the workplace showed

negative effects on patient outcomes. Healthcare settings characterized by such factors face many surgical errors and high mortality rates.

Lack of teamwork, as well as rudeness and disrespect, have adverse effects in the healthcare settings as they increase the chances of errors and other unsafe patient care practices (Martinez et al., 2015). In the healthcare setting, most of the hierarchical models are structured in such a way that subordinates cannot question their leaders. The hierarchical structure has an effect on patient outcome since it determines how team members communicate (Martinez et al., 2015). The participation of a nurse in such a hierarchical structure is limited as the juniors are not involved in decision-making process. The perceptions of the team members and the possession of varying teamwork skills are other factors that hinder effective collaboration (Martinez et al., 2015).

Blake et al. (2013) found that physicians are more domineering in the healthcare setting and may not see themselves as part of a larger team. Such a lack of perception on the part of physicians has a demoralizing effect on nurses. Physicians tend to undermine nurses' work, which hinders effective teamwork and providing quality healthcare (Blake et al., 2013). An unhealthy environment is characterized by some of the members portraying intimidating behaviors that destroy teamwork and lead to mistrust. Such a negative environment decreases the nurse's morale and leads to a high turnover in the workplace. In addition, patient safety is put at risk in this type of dysfunctional, unhealthy environment.

Collaboration, teamwork, and the work environment are linked to the healthcare organization leadership and management (Blake et al., 2013). According to Barnes et al. (2013), the performance of a healthcare organization and evidence-based practice depend

on the organization's leadership. Patient safety is determined by the attitudes and the personalities of the leaders. An HWE provides transformational and visible nursing leadership that supplies a platform to address issues in the nursing practice and create a favorable working environment for all staff (Duffield, Roche, Blay & Stasa, 2011). An HWE promotes collaborative partnerships and supports nurses and other healthcare providers in their practices.

Nursing Work Environment and Patient Experiences

Kieft, de Brouwer, Francke, and Delnoij (2014), conducted a cross-sectional study to investigate the relationship between the nurse's work environment and the experiences of the patients. The research revealed that patients' experiences are much better in HWEs. Kieft et al. (2014), used data from the national Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey on the experiences of the patients in the healthcare settings (Agency for Healthcare Research and Quality (AHRQ), 2016). The Practice Environment Scale of the Nursing Work Index (PES-NWI) instrument was used to measure the work environment of the nurses, which consisted of leadership and the nurse-physician relationship (Lake, 2002). The findings revealed the working environment has a significant influence on the experiences of patients in relation to quality care.

The findings by Kieft et al. (2014) were consistent with those of McHugh and Ma (2014), in which 95,499 nurses in 428 hospitals participated. The researchers used CAHPS and the PES- NWI. The findings showed that the nurses' lack of satisfaction in the work environment was related to the patients' experiences to quality care. The results demonstrated that both the patients and the nurses had positive experiences in healthcare

settings that had better work environments. There is substantial evidence of the relationship between work environment and patient experiences, but little research has focused on the characteristics that make up a healthy environment (McHugh & Ma, 2014). In general, however, researchers agree that nurses play a central role in quality care and patient safety (Blake et al., 2014).

An HWE enables nurses to achieve the goals of the healthcare organization and achieve personal satisfaction in their nursing practice (Aiken et al., 2012). Aiken and colleagues (2012) conducted a cross-sectional study of medical-surgical nurses in different states in the US. The study assessed the work environments in hospitals and the relationship with quality care so as to come up with strategies to retain nurses in healthcare settings. The findings revealed that a nurse's workload, skill mix, job advancement, and wages were some of the factors that influenced the quality of healthcare (Aiken et al., 2012). Nurses from different states expressed the same concerns regarding the availability of resources and workforce management in the healthcare setting. An HWE challenges nurses to use their skills, expertise, and clinical knowledge in their nursing practice (Aiken et al., 2012). Moreover, in an HWE, nurses feel motivated to provide the best care to the patients. Duffield et al. (2011), revealed eight aspects that are essential in a working environment. They include competent nurses, adequate staffing, autonomous nursing practice, managerial support, self-centered care, and a better relationship between nurse and physician.

Patient Safety and Work Environment

Organizational culture and climate are the key components of patient safety in the healthcare setting (Blake et al., 2013). Culture relates to values, beliefs, norms, and the

assumptions that are shared by members of an organization. The organizational culture forms a key component of a work environment that is not easy to change (Blake et al., 2013). Organizational climate involved the shared perceptions by members of an organization in relation to leadership, decision making, job advancement, and collaboration. Clarke and Braun (2006) described an organizational climate as the perceptions that can be changed as it relates to work and conditions of practice, which can be influenced by organizational leaders and managers. Safety climate refers to the members' perceptions in relation to safety and the behaviors and norms towards the same (Thomas & Classen, 2014). An HWE is highly characterized by a safe climate that enables nurses to provide quality and safe care to patients.

In the area of occupational health, a safe climate in the healthcare setting entails support by senior management for safety programs, lack of any hindrances to implementing safe work practices, use of protective equipment, clean work site, good communication, and feedback on safety issues (Duffield et al., 2011). A safe working environment is associated with reduced errors and work injuries. According to Duffield et al. (2011), safe and HWE are associated with supportive managers and supervisors, improved communications, and increased reporting of errors.

A team of scholars forming part of the AHRQ's research portfolio described aspects of the organizational climate and its relationship with patient safety and its workers (Aboneh et al., 2015). Aboneh et al. (2015) tested the model under different settings, including ambulatory care, long-term care, and acute hospitals. They identified important structures of an organization, such as the leadership and infrastructure, the processes such as work design, supervision, quality emphasis, and group behaviors. The

model formed a framework for review of organizational climate on employees and patient outcomes.

Safety Culture in the HealthCare Environment

The Institute of Medicine emphasized the development of safety culture in the healthcare organizations (Aiken et al., 2013). Safety culture entails a combination of individual values, attitudes, pattern of behavior, and competencies that establish a commitment to proficiency and style of a particular organizational health and safety program (Croll et al., 2012). A safety culture ensures that employees are working in a healthy environment with less risk of injuries or medical errors.

Sammer et al. (2010) evaluated the components of a safety culture by conducting an extensive review of safety literature from US healthcare settings. This study involved a qualitative meta-analysis to develop a safety culture framework. The researchers established that communication, evidence-based research, teamwork, leadership, learning, and patient-centered care are the major components of a safety culture. These findings revealed that creating a safety culture is a key aspect in developing an HWE. Healthcare organizations can create an HWE by fostering a safety culture (Sammer et al., 2010).

Organizations have adopted positive safety culture characteristics such as effective communication. This involves a high level of trust and a shared opinion on the importance of measures to prevent errors (Sammer et al., 2010). A safety climate is described by members' perceptions to prioritizing safety in the work environment. This climate is influenced by the safety expectations and norms, management decisions, safety procedures, policies and the practices in the organization (Croll et al., 2012).

Organizations with a high safety culture provide safer and higher quality care to patients. Other researchers have shown that perceptions on the safety culture are more positive among managers and leaders than people who are directly involved in the providing the care (Sammer et al., 2010).

Halligan and Zecevic (2011) argued that an HWE cannot be attained without a focus of creating a safety culture. They conducted a study to evaluate the definitions and measures of a safety culture through a review of 139 articles. The results of the study revealed a variance on what a safety culture entails and its relationship with an HWE. According to Halligan and Zecevic (2011), nurses show the lowest perceptions of the importance of a safety culture. Nurses should be encouraged to understand the importance of a safety culture in the working environment. The nurses should also understand their crucial role in fostering a safety culture in the nursing practice (Halligan & Zecevic, 2011). A perception of hospital staff to safety culture is linked to the leadership and structure of the healthcare setting where the nurses are able to work optimally (Thomas & Classen, 2014). The organizations with a poor safety culture experience many errors. Therefore, a safety culture can be used as a predictor of medical error occurrence in a healthcare organization (Thomas & Classen, 2014).

Developing a safety culture involves a strong commitment by the leaders, executives and healthcare staff. According to Aiken et al. (2013), a safety culture that is effective includes leaders who are committed to safety. These leaders empower and engage the healthcare staff through nonhierarchical decision-making, effective communication, training, incentives, rewards, and constrained improvisation. The Association of Operating Room Nurses provided guidance for creating a safety culture

that emphasized the reporting culture, just culture, wary culture, and a learning culture (Thomas & Classen, 2014).

Changing the organization culture is not an easy task and cannot happen abruptly (Aiken et al., 2013). Frequently, nurses are blamed for the occurrence of adverse events, and it is important for nursing leaders and managers to create a just culture where the nurses are free to report any errors without fear. The leaders should be able to distinguish between the blameworthy and blameless events and identify the major cause of the problem, which, in many instances, lies in the kind of work environment the nurses are engaged in. According to Croll et al. (2012), an unhealthy environment is characterized by a high level of secrecy and defensive behaviors, which compromise patient safety and quality care.

There are factors that can impede the development of a safety culture such as clinicians viewing errors as a failure that necessitates blame (Carayon et al., 2014). The other factor is the nurse's perception of training as rules to be adhered to instead of knowledge. Lastly is punishing the person who has committed the error instead of improving the system (Nørgaard et al., 2013). These factors are a result of an organization's failure to embrace the impact of the work environment on the nurse's performance, expectations of a perfect world, failure to accept that humans are prone to error, and lack of collaboration in the organization (Norgaard et al., 2013)

To change the organizational culture, members and leaders of healthcare organizations need to assess the current culture and its relationship with patient safety (Sammer et al., 2010). The safety culture measures include leadership and management, staffing, teamwork, communication, responses to error, policies and procedures,

employees' attitudes, and perceptions towards safety programs (Thomas & Classen, 2014). These tools can be used in assessing the organizational culture and making improvements. A healthy organization with a high safety culture provides an HWE where staff can give optimal care to patients and feel fulfilled in their careers.

The Institute of Medicine (IOM) report, "To Err is Human, is a landmark document that emphasized the crucial role of a work environment to the nurses and other healthcare providers (Kohn, Corrigan, & Donaldson, 2000). The IOM committee reported that most nurses are dissatisfied with the work environment in which they work, a factor that is highly related to patient safety (Aiken et al., 2013). The IOM report indicated that nurses are in dire need of better working conditions so as to improve the quality of care provided to their patients (Kohn et al. 2000). The findings from this committee necessitated significant changes in the work environment of the healthcare organizations. The work environment entails organizational structures, such as management and leadership, workforce, work processes, and organizational cultures (Blake et al., 2013).

To understand the best means of achieving a healthy environment, it is important to consider the knowledge of the standards established by the American Association of Critical-Care Nurses (AACN). The AACN maintains that nurses should incorporate communication skills into their nursing skills as a means of creating a healthy environment (AACN, 2011). Nurses also have to foster a standpoint of collaboration within the healthcare environment to create an HWE that is collaborative in nature. Nurses are also required to ensure effective decision-making when undertaking their duties. The employees in healthcare settings have a mandate of addressing the needs of patients in a healthy environment through evaluating and ensuring the competence of the

healthcare professionals (AACN, 2011). Teamwork and valuing others is important in fostering an HWE. Proper leadership is also important and is achieved through dedication towards achieving HWE and delegation of duties and appropriate means (AACN, 2011).

The AACN HWE model was developed by the AACN to understand the process of achieving a healthy environment (AACN, 2011). The relationship between the AACN model and HWE is based on the common variable; the nurses, the patients, and their environment. Since these variables are interdependent in achieving a healthy environment for the patient and healthy working conditions for the nurse, these factors serve as the key point to developing an HWE model of conceptualization. (See Figure 1).

The HWE model focuses on the three dimensions of creating a healthy environment. The model specifically involves people in the healthcare setting, including patients and nurses (AACN, 2011). As in the AACN model, the difference in patients' needs is also a consideration in the HWE model. These needs are realized by the nurses who, in turn, find means to address them by providing the best care that allows for a healthy environment among the patients. Another consideration for enabling a healthy environment in HWE is ethical considerations and the policies put in place in relation to the healthy environment (AACN, 2011).

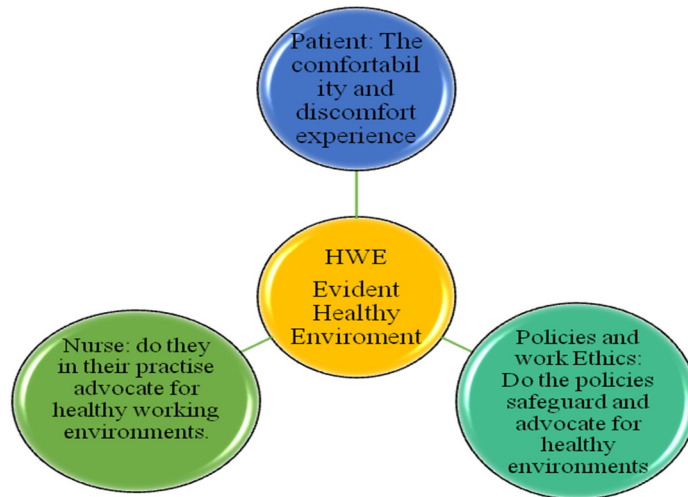


Figure 1. AACN HWE Model. Source: AACN (2011).

The American Nurses Credentialing Center (AACN) (2008) came up with the magnet recognition program, which has the primary role of accrediting healthcare settings that have high quality care, innovations, and nursing excellence. The magnet model outlines some of the key elements that characterize an HWE. (See Figure 2.) The magnet model forms a framework for achieving excellence in the field of nursing, which is one of the key factors for an HWE. As illustrated in figure 2, the magnet model strives for innovation and discovery to make reforms in the healthcare setting. Only an HWE can foster innovations and give room for changes in the reform (ANCC, 2008). The other key aspect of the model is transformational leadership. The nurses and the leaders should support and advocate values, behaviors, and beliefs that create an HWE (ANCC, 2008).

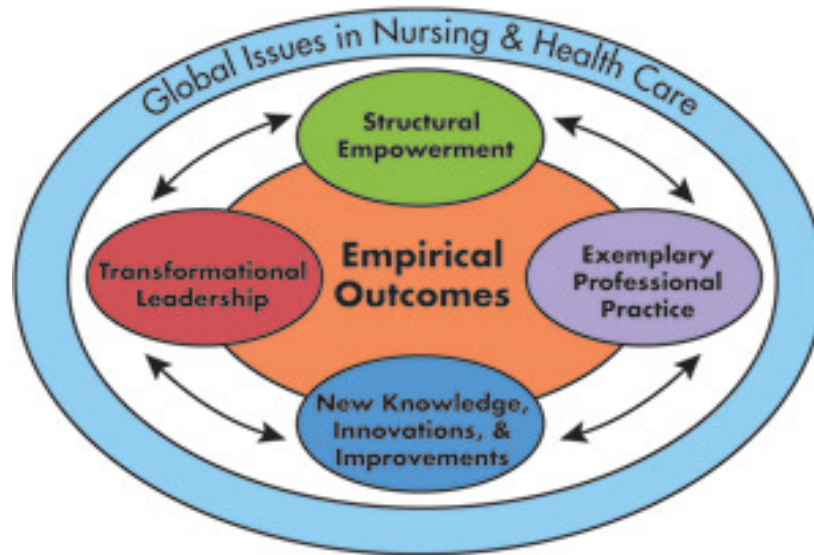


Figure 2. Magnet model. Source: AACN (2008).

An HWE is able to meet the characteristics articulated in the magnet model as the nurses feel free to share their ideas and opinions, and thus develop on a professional and personal level. The magnet model also articulates that nurses should form part of the decision-making team on issues of patient care and safety (ANCC, 2008). Exemplary professional practice is very important and it entails providing efficient and effective care by the nurses in partnership with the patients and their families, as well as the healthcare support system (ANCC, 2008). These characteristics form an HWE where the needs of nurses and leaders, as well as the patients, are met. The magnet model also displays other key aspects of and HWE, including knowledge, innovation, and improvement. Nurses are educated to apply the safest and the most effective patient care practices and work environment (ANCC, 2008). The other aspect of the magnet model is empirical outcomes, including workforce, organizational, and patient outcomes (ANCC, 2008). These factors are the “report cards” for demonstrating excellence and the key elements of an HWE. In

the magnet model, it is posited that fostering these principles leads to the realization of a healthy environment.

Within an HWE, the organization enhances effective decision-making among nurses that contribute to the value of the organization. An HWE is also characterized by adequate staffing, with nurses that are highly skilled to meet patients' needs (Kramer et al., 2011). Nurses exercise authentic leadership in which they are committed to foster an HWE, an endeavor that can involve everyone in the healthcare setting. In turn, healthcare organizations make changes in the nurses' working environment based on nursing input. According to Kramer et al. (2012), the practice environment for nurses can be defined by the characteristics of the organization that have the ability to encourage or constrain the nurse's practices. The nurse work environment is changed to enable and support nurses to provide safe and quality care to the patients. These changes require healthcare leaders to adapt new strategies in the organizational structure to address workforce resources, nurses' education, and the competencies of the nurses (Bechdel, Bowman, & Haley, 2014).

Conclusion

Organizational climate and culture form the key aspects of a healthy working environment. However, there are other factors that relate to patient safety and nurse job satisfaction such as workload, nurse-patient ratio in long-term and acute care, mandatory overtime, working hours such as shift length and night shifts, supervisors support, and reporting errors, among others. All these factors determine if an organization promotes a healthy or unhealthy working environment for nurses and other healthcare providers that, in turn, may affect patient outcomes. As the above review of the literature demonstrates,

the evidence is increasing that work environment is significantly related to nurses' attitudes, behavior, and motivation in their nursing practice. Concurrently, nurses' behavior is influenced by the working environment, which in turn affects the quality of care and patient safety. Data from relevant studies reveal that organizations with HWEs have more job satisfaction among nurses. In an HWE, nurses feel empowered and supported by the organization, and the resulting team collaboration enhances nurses' morale. However, a paucity of documentation still exists in the current research base regarding the perceptions of nurses of what constitutes an HWE and its impact on patient safety. Thus, this study was undertaken to provide more insights in this area and fill an important gap in current health care literature.

CHAPTER III

Methodology

The purpose of this grounded qualitative study was to seek a broader understanding of acute care nurses' perceptions regarding HWE and its impact on patient safety and the healthcare setting in general. This chapter provides the study design, the sample section, sample access, data collection, participant management, session management, data management, data analysis, rigor, ethical considerations, and researcher's reflection on the phenomenon. In this chapter, the methodology is discussed along with procedures for sample selection, data collection, and data analysis. Rigor and ethical considerations are also presented.

Research Design

This qualitative study used a grounded theory approach. A grounded theory approach was appropriate for this study, as it provided a method to explore the perception of social processes shaping a healthy workplace environment, an area about which little is known (Denk, Kaufmann, & Carter, 2012). Grounded theory can be carried out using three different approaches: participant observation, interviewing, and collection of artifacts and texts (Glaser & Strauss, 2009). Participant observation entails the researcher immersing into the routine and daily lives of the participants, and that requires a lot of fieldwork. The collection of texts and artifacts involves the researcher collecting charts, written protocols and education handouts that are used by people in the area under study in their day-to-day lives. In this study, the researcher used an interview approach to explore participants' perceptions of an HWE. The researcher used open-ended questions to talk with the participants and seek an understanding of the topics under study.

In the grounded theory approach, the researcher begins by asking a specific question that leads to the development of other theories in the topic under study (Kaufmann & Denk, 2011). The researcher asked about the nurse's perception regarding HWE and then generates more ideas and topics on the same. Grounded theory involves some form of iterations where one cycle leads to the development of the next cycle. The researcher continued seeking answers from the participants until saturation was achieved. Saturation is the point at which no more new insights or ideas can be generated from the data.

Research Sample

Participants for this study consisted of a community-based purposive sample of nine RNs with acute care experience in a large city in southern California. The study sample was recruited using a snowball approach.

Sample Selection

Purposeful and snowballing strategies were used to access this community-based population. The sample included acute care nurses with experience working on a surgical care floor in a community hospital. Purposive sampling is a judgmental or selective type of non-probability sampling technique (Silverman, 2011). Unlike other methods of sampling, purposive sampling is not intended to select sample participants from a given population for generalization to a population of interest.

Purposive sampling focuses on some particular characteristics of a given population that enabled the researcher to answer the research questions (Ritchie, Lewis, Nicholls, & Ormston, 2013). The fact that the sample is not a representation of the general population is not considered a weakness in qualitative research. Snowball

sampling exploits the social ties and network referrals of the potential participants who portray the characteristics for inclusion in the study. The researcher asked the initial participants to nominate other participants who had a similar trait of interest. The researcher asked the participants to refer some of their colleagues who may have been helpful in addressing the topic under study. The two sampling techniques, therefore, ensured the recruited participants felt under the boundaries of the inclusion and the exclusion criteria set for the study and ensured the efficiency of the recruitment process.

Inclusion and Exclusion Criteria

Recruiting RNs with a minimum of three years of experience working in surgical units ensured they were familiar with the policies, the working environment, and the culture of a healthcare organization. Those nurses with less than three years' experience in their current positions were excluded from the study since they were not so familiar with the working environment as to make insightful perceptions on the case under study. The target sample size for this study was 15 participants, a number theorized to be of sufficient size to achieve a point of data saturation (Mason, 2010). The researcher recruited 10 participants and sought the recommendation of five additional participants in a snowball fashion. The sample size for qualitative studies is determined based on the point of saturation at which no new information is collected (Mason, 2010). Qualitative researchers recommended 10 to 20 interviews in order to obtain a detailed account of personal experiences (Silverman, 2011). While 10 participants were recruited, a total of 9 completed the interview. Saturation of thematic categories was reached at 8 participants.

Sample Access

The researcher advertised for interested acute care nurses through posting flyers

in public locations. Interested participants were asked to contact the researcher through email or telephone based on the information give in the flyer. All participants were given the opportunity to ask any questions they had about the study. Written, informed consent was obtained according to the policies of the University of San Diego Institutional Review Board prior to beginning data collection.

Data Collection

Following informed consent, individual, digitally recorded interviews were conducted with each participant in a location in which privacy was assured. It was assumed that the average interview took approximately 45-60 minutes. The data collection began with administration of the Demographic Data Form (Appendix A). The research questions in Appendix B were asked, which prompted more questions on the topic under study. Participants in the study received \$25 Starbucks Card as a gift for participation. The gift was assured irrespective of whether the participant stayed until the end of the study or not. The participants were allowed to withdraw from the study at any time, if they so desired.

Data Management

Upon completion of every interview session with a participant, the digital recordings were uploaded to a transcription service. The digital recordings were transcribed after two days by a professional transcriptionist. The researcher reviewed the written interview transcripts against the digital recordings to ensure they were accurately transcribed. The digital recordings were then deleted once the accuracy was confirmed. Any information in the transcripts that could reveal the participant's identity was deleted from the transcripts. A pseudonym was assigned to each participant, and no personal

identifiers were recorded. The participant's information such as the consent forms and transcripts, were kept safe in a locked cabinet and maintained for a minimum of five years.

Data Analysis

This study used thematic analysis congruent with the grounded theory method to identify relevant themes of social processes. Thematic analysis helps a researcher to determine, analyze and report patterns that generate themes within a certain set of data (Clarke & Braun, 2013). The researcher used codes to identify the data from the transcripts and established the emerging themes that facilitated coding. Thematic analysis helped the researcher to learn the perceptions of the participants in relation to the health of the workplace environment and patient safety (Alhojailan, 2012). The researcher provided detailed information on the barriers to reporting of errors and disclosure.

According to Clarke and Braun (2013), thematic analysis coding entails several steps; (a) data familiarization, (b) initial code generation, (c) theme search, (d) theme review, (e) theme definition and naming, and (f) report production. The first step of data familiarization entails organizing the data into sections that are manageable, which are loaded into the NVivo software (Clarke and Braun, 2013). The initial code generation involves coding scheme development whereby a coding guide is developed to ensure there is uniformity in data grouping. The initial coding also tests for clarity and consistency within a given set of data (Clarke & Braun, 2013). The consistent theme enabled the researcher to code the entire data and proceed to the theme search that was the second step in the coding process. Theme search involved developing ideas that were of a particular group and described as a theme. The fourth step of coding was theme

review that ensured that the codes were consistent to a given theme and that the themes were also grouped cohesively. The researcher identified the themes in the next step of coding which addressed the research questions.

The final stage was the development of report conclusion. Conclusion generation entailed seeking some sense of the themes or categories identified so as to derive meaning from the data. The researcher used the themes and sub-themes as the basis to reconstruct the participant's experiences within the HWE in the healthcare setting.

Rigor

Raw and transcribed data were shared with the researcher's dissertation chairperson and emerging themes were validated. Collaboration with the researcher's dissertation committee regarding the validity of emergent themes and their relationships ensured validity as suggested by Glaser and Strauss (2009).

Conformability of the findings was determined through reflexivity where the researcher reflected on an individual's bias. This was attained by the researcher revealing details about personal background and feelings towards the subject under study. This helped those who read the research study to establish if there was bias on the part of the researcher.

Transferability in this research was achieved by using open-ended interview questions. The participants were asked general questions to which they answered freely based on their own experiences regarding HWE. There was no pressure to the participants to give yes or no answers but detailed descriptions of their personal experiences.

Human Subject Protection

Approval for this study was obtained from the Institutional Review Board (IRB) at the University of San Diego. Written informed consent was obtained prior to data collection. All potential participants were given an opportunity to ask questions prior to giving informed consent. No personal identifiers were used in the interview process, and each participant was assigned a pseudonym/number. The digital recordings contained no personal identifiers and were transcribed by a professional transcription service. While brief quotes were presented in professional presentations and publications, no personal identifiers were associated with individual quotes. All data was kept in password-protected, locked computer files with access only by the researcher.

Researcher's Reflection on the Phenomenon

It is important for a researcher to reflect on his or her own experience on a given phenomenon before conducting the study. The reflections are important as they help identify if a researcher is biased towards the topic under study. These are the researcher's reflections towards HWE and patient safety. I have worked in the healthcare setting for a period forty years. I observed the manner in which nurses conduct their day-to-day activities in providing healthcare services to the patient. The majority of the nurses had a high level of compassion and empathy towards the patients and their families. The nurses were the primary care providers and were held responsible for any medical errors. The nurses worked under stressful conditions that were at times characterized by heavy workloads, long night shifts, and high patient population. I observed that nurses do their best to ensure the patients are safe and receive optimum care. However, in some cases, the difficult working environment deterred nurses from giving the best care to patients,

which then led to medical errors. I believe the nursing work environment had an effect on the patient safety but did not want to make any speculations. It is my intention to set aside my personal experience and seek to understand the nurses' experiences and stories on the HWE and its effect on patient safety.

CHAPTER IV

Results

The overall purpose of this qualitative study was to explore the perceptions of RNs in acute care settings regarding the processes that shape an HWE and the effects on patient safety. This qualitative study used a grounded theory approach. In this chapter, the description of the participants, the perceptions of RNs in acute care settings regarding the processes that shape an HWE and the effects of HWE on nurses and patient safety is presented.

Ten participants were recruited, and 9 completed interviews which were conducted in the study. After the eighth participant's interview, data saturation occurred and the primary themes from the interviews were identified. The identified themes were further saturated to identify the subthemes. Four primary themes were identified from the interview responses and a total of 21 subthemes emerged. Tables were used to present the identified themes and subthemes of each research question.

Sample Profile

Description of Participants

The final sample consisted of 9 participants. The entire sample was female (100%). Eleven percent of the sample held an associate degree, 44% had a bachelor's degree, and 22% had a master's degree. Table 1 presents an overview of the participant data.

Table 1
Descriptive Statistics

Characteristics	N	%
Gender		
Male	0	0.0
Female	9	100.0
Age		
28-38	2	22.2
39-49	5	55.6
50-56	2	22.2
How many years have you worked as an RN?		
7-17	4	44.4
18-29	5	55.6
What was your initial degree as an RN?		
AND	3	33.3
BSN	6	66.7
What is your highest nursing degree?		
Advanced practice nurse	1	11.1
Associate	1	11.1
BSN	4	44.4
DNP	1	11.1
MSN	2	22.2
What is your current employment status?		
Certified lead	1	11.1
full time	7	77.8
per diem	1	11.1

Purposeful and snowballing strategies were used to access this community-based population. The sample included acute care nurses with experience working in a telemetry unit in a community hospital. Registered nurses with a minimum of three years of experience working in surgical units were recruited so as to ensure that they were familiar with the policies, the working environment and the culture of a healthcare organization. Those nurses with less than three years' experience in their current

positions were excluded from the study since they might not be so familiar with the work environment as to make insightful perceptions on the case under study.

Research Question #1

What are the perceptions of registered nurses in acute care settings regarding the processes that shape a HWE?

Communication with the healthcare settings.

Table 2

Thematic Categories and Invariant Constituents – Communication with the Healthcare Settings

Subthemes	No. of participants	% of participants
Communication with the Healthcare Settings influences HWE	6	66.67
Communication is pretty good	3	33.33

The following discussion presents the invariant constituents that show a sign of their significance. Examples from the interviews of the participants are used to support the themes of the data. The first thematic label was determined from two invariant constituents (Table 2). The subthemes central to the theme are as follows: (a) communication with the healthcare settings influences HWE, and (b) communication is pretty good.

The responses by most participants focused on positive opinions. The most significant and highly relevant themes that emerge from the aggregation of the subthemes illustrates that communication with the healthcare settings influences HWE. Communication with the healthcare settings tended to be important for most participants.

Most participants said communication with the healthcare settings influenced

HWE. Thematic Category #1 (Communication with the healthcare settings influences HWE) shows the most prevalent groups of characteristics mentioned by participants. The frequency in which the subthemes were mentioned and the breadth of the participants' responses with regard to them were enough for Thematic Category #1 (Communication with the healthcare settings that influences HWE) to be considered individual thematic category.

Six participants said that communication with the healthcare settings influenced HWE. For example, Participant #5 said that communication with the healthcare settings influenced HWE 100%. If her lead knew ahead of time how the patients were at that time, it would be healthier for the nurse to have a heads up before she got the patient. If the department transferring had enough time to tell the new nurse what was going on and she could prepare to get a patient in that need, then it would be healthy.

Participant #8 agreed with her. She said that communication was so important.

She said, "If there's no communication, then there are mistakes. To err is human, obviously, but if there's no direct one-on-one communication or no follow-up, then a lot of things get missed, patient errors, medication errors, procedures do not get done."

She was a big double-checker when it came to communication like having someone repeat back to her what they wanted, especially with a verbal telephone order or something like that. She repeated it twice because she did not want there to be errors. For an HWE and to have good morale, she was doing a good job.

She said, "We want to do a good job. Part of doing a good job is having good communication."

Participant #6 agreed with her. She said, "They'll go around and they'll mention it in the huddle where we're all pretty much. We're supposed to be there before we go get report from other nurses."

Participant #9 agreed with her. The participant also thought that communication with the healthcare settings influenced HWE.

She said, “If you are able to communicate respectfully to each other, the nurses ... You will feel supported. If you have issues or doubts, a nurse should be able to communicate that without the threat of fear from your manager and either get clarification or support. If there is fear or punitive environment where people are either bullying or not respecting each other, then it really makes for an unhealthy environment where everybody is walking on eggshells and is going to work with fear or uncertainty. You feel stressed.”

The second thematic category shows the additional positive characteristics presented by 3 participants with regard to communication with the healthcare settings.

The subtheme central to the next theme is as follows: Communication is good.

Participant #1 stated, “Communication's pretty good. She is usually, kind of like - how do you word that - we have meetings. She's good at giving meetings, but she also expects us, being a supervisor, to be able to meet with our direct reports and communicate to them what we need. As supervisors, she meets with us a weekly basis and gives us actually a list of what we need to do, or she would be volunteered to do projects. Then she keeps us accountable for that. She asks us to report our progress, depending on how our direct reports are doing.”

Participant #2 agreed with her. She thought communication was good.

She said, “If it's from management to the staff, because then they do it via email, sometimes during huddles, sometimes maybe in small groups, things like that. If it's from nurse to nursing assistant, we try to do a huddle.”

She tried to give a morning report to the nursing assistants.

Team and collaboration. The following discussion presents the subthemes that show a sign of their significance. Examples from the interviews of the participants are used to support the themes of the data. The second thematic label was determined from

two subthemes as follows: (a) team and collaboration influence HWE in healthcare settings, and (b) team and collaboration are important. See Table 3.

Table 3

Thematic Categories and Invariant Constituents – Team and collaboration

Subthemes	No. of participants	% of participants
Team and collaboration influence HWE in healthcare settings	5	55.56
Team and collaboration are important	3	33.33

The responses by most participants focused on positive opinions. The most significant and highly relevant themes that emerge from the aggregation of the subthemes illustrates that team and collaboration influence HWE in healthcare settings. Team and collaboration tended to be important for most participants.

Most participants said that team and collaboration influenced HWE in healthcare settings. Thematic Category #1 (Team and collaboration influence HWE in healthcare settings) shows the most prevalent groups of characteristics mentioned by participants. The frequency with which the invariant constituents were mentioned and the breadth of participants' responses with regard to them were enough for Thematic Category #1 (Team and collaboration influence HWE in healthcare settings) to be considered individual thematic category.

Five participants said that team and collaboration influenced HWE in healthcare settings. For example, Participant #2 thought that team and collaboration influenced HWE in healthcare settings.

She said: "If you have somebody who solely wants to be independent and doesn't want to get report from somebody else, then you might miss certain communication, like, 'Oh, I have to tell you that this is something new going on with the patient,' but then

they're off doing else, or they don't want to meet for a little report or an update. To the question, I think it influences greatly.”

Participant #4 agreed with her. She believed that team and collaboration influenced HWE in healthcare settings because she had a lot of unit-based projects (e.g., the fall protocol). She also attended leadership seminars as even supervisors in the unit, quarterly leadership. She was being developed as a leader and accountable as being a leader.

She said, “The finances, the benefits, as well as how much it's costing our unit. For example, we were in a how much is a cost of a fall, or how much is the cost of length of stay increasing in our unit? We have some sort of, what's it called, numbers or measures that we need to meet. Also, we have patient satisfaction. I was the leader of that, and it was implemented in our units and I was a project that I was proud that helped me with helping improve patient satisfaction in our unit at that time.”

Participant #2 agreed with her. She said the group she worked with was good.

She said, “If you are in the situation, the nurses on my unit specifically, we all work together. Whether we got an unhealthy patient or unstable the nurses will do what they can to help you.”

The second thematic category shows the additional positive characteristics presented by four participants with regard to team and collaboration. The subthemes central to the next theme is as follows: Team and collaboration are important.

Participant #1 said, “Team and collaboration are important in our healthcare setting because If we are working on a certain patient, from the time the patient gets admitted and the time the patient gets discharged, the flow of the confinement of the patient hospitalization is easier when the team collaborate with us upon admission. This is important because if they communicate with us about the plan and if there's issue upon admission prior discharge, at least, the staff would know right away and we can actually do things and take care of things right away.”

Participant #9 agreed with her. She thought that team and collaboration were important.

She said, “It's a strong factor, because you go to work every day, not every day, but 3 times a week, and you pretty much ... You don't want to feel alone when you take care of patients, because no one lives alone, and in our profession, you need a lot of help. You need a lot of help in turning patients. You need a lot of help with just operations every day, so really collaborating, and it makes the work easy and less stressful.”

Nurses assist in cultivating a healthy working environment in the healthcare settings. The following discussion presents the subthemes that show a sign of their significance. Examples from the interviews of the participants are used to support the themes of the data. The third thematic label was determined from four subthemes as follows: a) unit-based councils, b) some programs, c) suggestions, and d) I don't really involve much. See Table 4.

Table 4
Thematic Categories – Nurses Assist in Cultivating a Healthy Working Environment in the Healthcare

Subthemes	No. of participants	% of participants
Unit-based councils	4	44.44
Some programs	1	11.11
Suggestions	1	11.11
I don't really involve much	4	44.44

The responses by most participants focused on positive opinions. The most significant and highly relevant themes that emerge from the aggregation of the subthemes illustrates they have unit-based councils to assist in cultivating a healthy working environment in the healthcare settings. Unit-based councils tended to be important for most participants.

Most participants said that they had unit-based councils to assist in cultivating a healthy working environment in the healthcare settings. Thematic Category #1 (unit-based councils) shows the most prevalent groups of characteristics mentioned by participants. The frequency in which the subthemes were mentioned and the extent of

participants' responses with regard to them were enough for Thematic Category #1 (unit-based councils) to be considered an individual thematic category.

Five participants said that unit-based councils influenced HWE in healthcare settings. Participant #4 had unit-based councils. She was attending with that. Each group had a representative in each department. She had a representative.

She also worked with managers and supervisors together, talking about what she needed to improve in her unit. She was accountable for the flexibility, the scheduling, and the staffing.

She said, "I make sure that our premium pay doesn't go up and make sure that our productivity stays within that realm of within the parameter of what needs to be done. We have a lot of accountability plus basically we also have the leeway to be able to kind of, like I would be able to speak on behalf of our leadership in our department, and of course being accountable for what I say."

Participant #8 agreed with her. She said that there was a unit-based practice council on the floor.

She stated, "There's a unit-based practice council on the floor, and that's basically floor nurses deciding what the floor should focus on and how to improve patient outcomes and patient care. As a newer nurse, it really helps me become involved in my unit and be more of a leader rapidly, than I expected, and I think that getting involved in your unit-based practice council, or evidence-based practice is essential to improved patient outcomes to have a better hospital environment, have a better healthy work environment. Can you repeat that question one more time, did I answer that?"

Participant #2 agreed with her. When she was an advanced clinician, she had a unit-based council. She decided how she ran things in a unit. She had a monthly lead meeting where, if there were issues, such as administrative issues, her manager asked how she felt about them. She usually took a majority vote and made decisions. It was very much a democratic vote.

The second thematic category shows the additional positive characteristics presented by Participant #1 with regard to some programs to assist in cultivating a healthy working environment in the healthcare settings. The subtheme central to the next theme is as follows: some programs.

Participant #1 said, “We do have some programs that we have in the hospital. We do have huddle, what we call, first thing in the morning, wherein all the nurses are actually having a short or brief meeting about any announcement that we are going to be having or anything, any issues or any new programs that the hospital's going to be getting. As an RN, they actually make us more involved when we have this little meeting, aside from our huddle that we do every day in the morning.”

Participant #9 agreed with her. She thought that team and collaboration were important.

She said, “It's a strong factor, because you go to work every day, not every day, but 3 times a week, and you pretty much ... You don't want to feel alone when you take care of patients, because no one lives alone, and in our profession, you need a lot of help. You need a lot of help in turning patients. You need a lot of help with just operations every day, so really collaborating, and it makes the work easy and less stressful.”

The third thematic category shows the additional positive characteristics presented by Participant #2 with regard to suggestions to assist in cultivating a healthy working environment in the healthcare settings.

She said, “I think to a certain point, with suggestions, to maybe improve things. I think sometimes that's heard. We have committees to try to work on that. Sometimes if there's an issue that's brought up, people might take it to the lead or maybe to the manager, and I think that's something that they would consider working or with their [unit-based council]. There's certain things I think might take a little bit longer. Again, I think my biggest thing is it probably goes back to staffing matrix. I think that's usually the hardest to try to make a difference, because that's set by budget, and I don't know if that's through the states and things like that. That's out of my hands or out of the nursing hands. I think that has to do with budgetary reasons.”

Five Things that can be done to improve the working environment in the acute care settings. The following discussion presents the subthemes that show a sign of their significance. Examples from the interviews of the participants are used to support the themes of the data. The fourth thematic label was determined from four subthemes are as follows: a) a lot of support from her manager, b) respect, c) you have to have a good workflow, d) staff, e) get to know each other, and f) better space is important. See Table 5.

Table 5

Thematic Categories – Five Things that Can Be Done to Improve the Working Environment in the Acute Care Settings

Subthemes	No. of participants	% of participants
A lot of support from her manager	3	33.33
Respect	2	22.22
You have to have a good workflow	3	33.33
Get to know each other	1	11.11
Better space is important	1	11.11

The responses by most participants focused on positive opinions. The most significant and highly relevant themes that emerge from the aggregation of the subthemes illustrates that a lot of support from their manager can improve the working environment in the acute care settings. A lot of support from their manager tended to be important for most participants.

Most participants said that a lot of support from their manager could improve the working environment in the acute care settings. Thematic Category #1 (a lot of support from her manager) shows the most prevalent groups of characteristics mentioned by participants. The frequency in which the subthemes were mentioned and the extent of participants' responses with regard to them were enough for Thematic Category #4 (a lot

of support from her manager) to be considered individual thematic category.

Six participants said that a lot of support from her manager could improve the working environment in the acute care settings.

Participant #9 stated, “A lot of support from your manager. I think you have to have really good communication skills and support from your manager in order to be successful in any job. Not only your peers, but for them. You have to have a balanced life. Working all the time is not very good. You have to be able to also play and have a leisure time.”

Participant #5 agreed with her. She also said that a lot of support from her manager could improve the working environment in the acute care settings.

She stated, “I think management, not necessarily my leads, maybe if Tamera came around early in the morning whatever time was better for her, early in the morning, or to say, come around our unit and say are you guys okay. How was your night? I can email her but if we saw people more. Our educator, I'm hoping she comes around more at night. Do you guys have some education needs that you need? Do you have, so that we know we're just not left in the dark basically, literally, at night. More people to be seen.”

The second thematic category shows the additional positive characteristics presented by two participants with regard to what can be done to improve the working environment in the acute care settings. The subtheme central to the next theme is as follows: respect.

Participant #8 said, “Respect is huge in my brain, and having a leader that really listens.”

With the new nurses, she wanted to create this healthy environment for them. She wanted them to stay. She wanted them to feel a part of it. Having a mentor was huge. A mentee could grow into a mentor, could grow into a leader. Having that encouragement was a big deal to create this healthy work environment.

Participant #9 agreed with her.

She said, “Yeah, I mentioned team work. I mentioned collaboration, respect. We need to give respect. It's a 2-way process, so you need to give us respect and we will give you respect. At the same time, we need to focus on patient safety and staff safety, and encourage open communication. That's crucial. There are a lot of things going on, like changes. There are a lot of new processes that are being introduced. That could make me feel like I'm overwhelmed all the time, and that I feel like I'm alone. I would need help as a bedside nurse. Yeah, like an avenue for me to voice out my concern and be heard.”

The third thematic category shows the positive characteristics presented by Participant #2 with regard to what can be done to improve the working environment in the acute care settings. The subtheme to the next theme is as follows: You have to have a good workflow.

Participant #2 said, “I think the biggest thing, especially in this day and age where it's very fast, people are in the hospital and out of the hospital faster, there's more stress. There's more stress on discharging patients. I think the first and foremost is you have to have a good workflow. Things have to be set up. In ER, they have a different set up. Obviously, it's there, since I don't work down there, but I'm assuming they get the patient and then they triage who's going to be more critical and who's not. You can't just suddenly put everybody in one room. You have to have your stations. I think having equipment ready, and having honest staff, and then having your supplies, and readily available things that you need. Because this is policy, say we have to wipe down these machines with bleach, I don't want to spend time looking for the bleach containers. They should already be there. It means all the little factors. You have your correct staff, your amount of computer work. Each person has a specific role. I think overall in summary, it's the workflow, I think, is the first part.”

The fourth thematic category shows the positive characteristics presented by Participant #6 with regard to what can be done to improve the working environment in the acute care settings. The subtheme central to the next theme is as follows: Get to know each other.

Participant #6 said, “I think they're doing some stuff. They're having little things outside of work. We're going to have a summer picnic. Last year was good Christmas party. Just little things like that where you can bring your family and your kids and get together outside of work. Get to know each other because you get new people all the time.”

The fifth thematic category shows the positive characteristics presented by Participant #1 with regard to what can be done to improve the working environment in the acute care settings. The subtheme central to the next theme is as follows: Better space is important. Aside from short-staffed, which she mentioned earlier, aside from hiring professional employees, which she mentioned earlier, better space was important because nurses worked 12 hours a day.

Participant #1 said, “We are entitled to have social interactions with other colleagues as well. What I'm trying to say is a better ... Because nurses need to unwind as well because we work 12 hours a day. We need to have a better lounge, a better space in our working environment in any acute hospital setting, where they can lounge comfortably. They can sit comfortably, a better table for them to eat at, maybe a TV would actually help.”

Research Question #2

What are the perceptions of registered nurses regarding the effects of HWE on nurses and patient safety?

The Perceptions of Registered Nurses Regarding the Effects of HWE on Nurses and Patient Safety

The Health care work environment influences the occurrence of medical errors. The following discussion presents the subthemes that show a sign of their significance. Examples from the interviews of the participants are used to support the themes of the data. The fifth thematic label was determined from four invariant constituents are as follows: a) the rush of getting everything all together, b) the lack of communication, and c) short-staffed. See Table 6.

Table 6

Thematic Categories – The HealthCare Work Environment Influences the Occurrence of Medical Errors

Subthemes	No. of participants	% of participants
The rush of getting everything all together	4	44.44
The lack of communication	2	22.22
Short-staffed	3	33.33
Micromanagement	3	33.33

The responses by most participants focused on positive opinions. The most significant and highly relevant themes that emerge from the aggregation of the subthemes illustrates that the rush of getting everything all together influences the occurrence of medical errors. The rush of getting everything all together tended to be bad.

Most participants said that the rush of getting everything all together influenced the occurrence of medical errors. Thematic Category #1 (the rush of getting everything all together) shows the most prevalent groups of characteristics mentioned by participants. The frequency with which the subthemes were mentioned and the extent of participants' responses with regard to them was enough for Thematic Category #1 (the rush of getting everything all together) to be considered individual thematic category.

Four participants said that the rush of getting everything all together influenced the occurrence of medical errors.

Participant #9 stated: "Human error. Major cause? I would probably say that I think some people would probably be feeling rushed. Sometimes I've noticed that sometimes when nurses are doing med pass their phones are ringing. People are calling them left and right. They have so many demands with the four patient ratios. It is better than California. I'm very thankful that they have a four patient ratio in [inaudible 00:10:51], or a five patient ratio in med-surg, but I know that other hospitals out there don't have that. They really need uninterrupted time when they're passing their meds. If you do interrupt a nurse a lot, it breaks their concentration, they lost their train of thought. Then, more errors would likely occur."

Participant # 6 agreed with her. She also said “Distractions and feeling rushed or rushing things.” She felt that was when things happened the most.

The second thematic category shows the additional positive characteristics presented by three participants with regard to the major cause of errors in the hospitals. The subtheme is as follows: short-staffed. Participant #1 said, “Short-staffed.” Because of administrative demands, more than one or two people would work. People were forced to work more than two people's job. She felt that was one of the reasons for error.

Participant # 4 agreed with her. She thought that major cause of errors in the hospital was short staff.

She stated, “I think major cause of errors in the hospital is short staff. Short staff, new staff, there's new staff is not being supported. Or you have equipment that is not functioning or not available, so that really would affect safety in the hospital, especially also the presence of not regular staff. For example, the floaters, the registry. They're not familiar with the units, so haven't worked registry, understand how that work, because you're not familiar with the unit. Then if you don't have a good support system, there's only resource and a charge nurse, overlooking everybody, assisting everybody for lunch plus looking at the new grads. I think that would be a problem.”

The third thematic category shows the positive characteristics presented by two participants with regard to the major cause of errors in the hospitals. The subtheme is as follows: the lack of communication.

Participant # 7 said, “I think the biggest thing, especially in this day and age where it's very busy. Patients are in and out of hospitals faster, so that puts more stress on nurses. There's more stress on discharging patients. I think the first and foremost is you have to have a good workflow. In the ER, they have a different set up. They want people out. The floor nurses are not always ready for the ER patients. They come up and leave them in the room with poor report.”

The fourth thematic category shows that micromanagement in the healthcare environment leads to medication errors. One of the participants explained that micromanagement leads to distractions where a person fears the management while

working, rather than attending to the patient. The participant further said that due to the micromanagement, nurses do not get enough support from the management team and there is too much responsibility that results in increasing the nurses' workloads. The nurses are forced to work on more than two patients, which increases the chances of medication errors.

Participant # 3 explained, "Well, if you have a healthy work environment you feel comfortable, you feel no one is actually micromanaging you. I think that would help you become less stressed and that would prevent the errors from happening. Stress, fear from the management always micromanage you whatever you do, what patients said, patients not happy. It does influence ... I think that's the biggest factor of being stressed in a hospital. It's not about care of the patient but it just the management, they micromanage you. When I work on the weekend I don't have that much stress. I'm able to feel more comfortable working on the floor. I don't have to worry about who's going to watch, your manager's going to complain about problems."

Participant # 6 supported the information on micromanagement and medication errors. Participant # 6 explained medication errors occur due to high turnover rates resulting from micromanagement. Nurse leaders or case managers influence the transfer of nurses to other hospitals and this increases the risk of nurse workload.

Participant # 6 explained, "I think if you have a lot of new people and not necessarily nurses but sometimes case managers. Sometimes that influences transfers to other hospitals that need to be done in a timelier manner. Also the nursing assistants too. If we have a high turnover or there's certain time when some of them are on vacation, another one's sick, and pregnancy leave... Seeing these are also very important. The more experienced ones can tell you, 'Oh this patient doesn't look good.' They're like your extra set of eyes and ears. Also they all let you know 'This vital is out of normal. I just want to let you know.' I think it does make a big impact, the experience of people."

Participant # 9 also supported the information provided by participant # 3 on the effects of micromanagement. Participant # 9 explained that medication errors occur when nurse are not provided with free environment.

Participant # 9 said, "Oh, it's huge, because if you are in a healthy work environment, you provide the staff with, what you call that, you provide the staff with a

free environment, a comfortable environment, and the nurse will feel like they are open to reporting. You can usher in more reporting from the staff, because your medication error data is only based on the reporting and what's reported to the pharmacy for medical error. If you are not providing the staff with a healthy work environment, they always feel like they're being punished for committing something or committing an error, especially in terms of education. Healthy work environment could definitely provide that avenue for nurses to report more and in doing so, we could learn from those mistakes and those errors, and could avoid any other complications in the future.”

The Healthcare Environment Influences Patient Safety. The following discussion presents the subthemes that show a sign of their significance. Examples from the interviews of the participants are used to support the themes of the data. The sixth thematic label was determined from four subthemes as follows: a) the healthcare environment influences patient safety, b) the way that it's done seems to backfire, and c) communication. See Table 7.

Table 7

Thematic Categories – The HealthCare Environment Influences Patient Safety

Subthemes	No. of participants	% of participants
The healthcare environment influences patient safety	5	55.56
The way that it's done seems to backfire	1	11.11
Communication	1	11.11
Enough staff	1	11.11
Teamwork and collaboration	3	33.33

The responses by most participants focused on positive opinions. The most significant and highly relevant themes that emerge from the aggregation of the subthemes illustrate that the healthcare environment influences patient safety. Patient safety tended to be important for most participants.

Most participants said that the healthcare environment influenced patient safety. Thematic Category #1 (The healthcare environment influences patient safety) shows the most prevalent groups of characteristics mentioned by participants. The frequency with which the subthemes were mentioned and the extent of participants' responses with regard to them were enough for Thematic Category #1 (The healthcare environment influences patient safety) to be considered individual thematic category.

Five participants said that the healthcare environment influenced patient safety. For example, Participant #2 said that the healthcare environment influenced patient safety.

She stated, "I think it influences it a great deal. Taking steps like, say ... Lots of times, patients that come in, they're confused, so the frequent rounding. We've tried to implement that. Maybe before it's like, you only went in there when they called you. Like the bed alarms, putting confused patients closer to the nurses' station, back to medications, reconciling medications, making sure that you're giving these patients for the right reason these medications. At home, who is their support person at home? Someone who's fallen a lot, are they going back home by themselves or are they going home with family members, or do they need a nursing home? I think looking, hopefully, at the big picture of the patient and not just, 'Okay, they've come in for pneumonia. We're going to give them antibiotics and send them home.'"

Participant # 4 agreed with her. She also said that the healthcare environment influenced patient safety. She worked as a relief charge nurse. She made rounds not only with the patients, but also with the new grads. She saw how they were doing monitored their progress during the shift.

In addition, there was additional support within the hospital. For example, the supervisors made rounds, helped her ensure that lunches were covered, and made sure any patient issues or staff encounters that arose were addressed. In addition, a support

system and collaborative effort were in place from both regular staff and senior staff to help new grads. Advanced nurse clinicians were also available.

The second thematic category shows the additional positive characteristics presented by three participants with regard to the impact of the health care environment on patient safety. The subtheme central to the next theme is as follows: short-staffed.

Participant #1 said, “I think the healthcare environment is trying to improve patient safety, but sometimes the way that it's done seems to also backfire. For example, I know that there is a lot of initiative out there to improve patient stats, to improve the admission rate, to improve the discharges rate. In doing so, it puts a lot of pressure on the hospitals in the numbers to come up with really unrealistic goals at times. Like I said, an example would be the throughout and the discharge.”

The third thematic category shows the positive characteristics presented by Participant #10 with regard to the impact of the healthcare environment on patient safety. The subtheme central to the next theme is as follows: The way that it has done seems to backfire.

Participant # 10 said, “I think the healthcare environment is trying to improve patient safety, but sometimes he way that it's done seems to also backfire. For example, I know that there is a lot of initiative out there to improve patient stats, to improve the admission rate, to improve the discharges rate. In doing so, it puts a lot of pressure on the hospitals in the numbers to come up with really unrealistic goals at times. Like I said, an example would be the throughout and the discharge.

The fourth thematic category shows the positive characteristics presented by Participant #1 with regard to the impact of the healthcare environment on patient safety. The subtheme central to the next theme is as follows: communication.

She stated, “First of all, communication is actually number one. In my own opinion, it's highly important for healthcare staff to spend some time communicating with their patients, especially when they get discharged, about the medications that they're supposed to be taking and not to be taking, activity, directions or diet that they're supposed to be just sticking with and not to be on compliance with the patient, as far as

communication by healthcare staff, is highly important because they go out just pretty much together.”

The fourth thematic category presented a positive effect of adequate staff in improving patient safety is enough staff. Responses from participant showed that nurse staffing in healthcare settings is the primary concern because of its effects on quality of care and patient safety. The presence of enough nursing staff in healthcare tends to result in higher rates of improved patient outcomes. It results in reducing nurse workload and burnout rates and improves patient satisfaction. Higher nurse staffing levels in the healthcare working environment leads to safer patient care. Appropriate nurse-staff ratios serve to reduce work stress in healthcare setting. Participant # 3 explained that a healthy working environment reduces stress among the staff, hence motivating them to work towards achieving patients’ expectations. The staff also would not feel overwhelmed when there is a safe working environment. The staff also would not feel rushed to conduct some duties that assist in providing a better and safe care to patients. Besides, a safe environment encourages more staff into the hospital. Therefore, with enough staff, a lot of errors in the healthcare settings are reduced. There would also be a decrease in burn out and injuries. Enough staff could assist in providing quality care to patients. This is because enough staffing helps in handling workloads and reduces long working hours which is best for patient care. From the information provided by the participant #3, it is evident that adequate nurses maintain continuous transfer of information between nurses about patients and this ensure that important information about the patient is not overlooked.

Participant # 3 explained, “I think the staff would be happier, less stressed, and we would come to work without feeling overwhelmed with our work. If we have enough

staff, we have enough help, I think that would greatly reduce a lot of errors, a lot of burnout, a lot of sick call, a lot of injuries from the work.”

The fifth category of theme identified from the interview responses is teamwork and collaboration. This thematic category demonstrates the delivery of better care. The majority of the participants explained the importance of teamwork and collaboration in patient safety. The fifth thematic category from the participants’ responses is teamwork and collaboration in the healthcare working environment. The participants explained the importance of teamwork and collaboration in improving patient safety. With a healthy working environment, the nurses feel satisfied with their work and they work together to deliver a quality care. The participants responded that the employees work together from the time the patient is admitted until the day of discharge. As the team collaborates, the flow of confinement of patient hospitalization is easier upon the day of admission. The staff work in collaboration about the patient nursing care plan. When an issue arises upon admission and before being discharged, the staff would have an understanding of the problem and would take enough actions to solve the issue.

For instance, participant # 1 explained, “It actually is important in our healthcare setting because if we are working on a certain patient, from the time the patient gets admitted and the time the patient gets discharged, the flow of the confinement of the patient hospitalization is easier when the team collaborate with us upon admission. This is important because if they communicate with us about the plan and if there's issue upon admission prior to discharge, at least, the staff would know right away and we can actually do things and take care of things right away.”

Participant # 6 supported the response from participant #1. She said that working together positively affects the safety of patients. When one nurse such as a certified nurse assistant is not around, the nurse in the next room would assist her in ensuring that the

patient is doing well. This reduces the risk of falls in patients hence promoting improved nursing care to patients.

Participant # 6 said, “If everyone is working together as a team it definitely affects safety because if you're looking out for each other and everyone else's patients then you have less for sure falls. If the CNAs don't happen to be around and the nurse is in another room, maybe you and the CNA are changing someone else, just to have that team work where somebody will go and go find that alarm and see if the patient's okay or they're just moving in bed. I think it helps and then also the more you work together the healthier, the safer patients are. Yeah.”

Conclusion

The findings suggest there are various primary factors or processes that assist in shaping an HWE in the hospital setting. These factors include communication in the healthcare setting, teamwork and collaboration, and ensuring the nurses' activities are geared towards cultivating an HWE. Nurses, especially, participate in unit-based councils and some of the programs within the healthcare setting, thereby fostering a conducive HWE. Nurses are also involved in providing suggestions on how the HWE could be improved. The findings also indicate there are certain measures that can be adopted to improve the working environment in the acute care setting. The participants believe this can be achieved through the support of nurse managers, fostering respect within the healthcare environment, ensuring a proper workflow, fostering positive relationships within the work environment, and providing better nurse welfare facilities, such as lounges.

In summary, the study findings demonstrate that HWE is perceived by experienced acute care RNs as having an effect on patient safety. Specifically, these participants indicated the healthcare environment has an influence on the occurrence of medical errors. The errors arise as a result of the rush to complete tasks, lack of

communication, lack of adequate nurses, and micromanagement within the nursing environment. Lack of teamwork and collaboration also were perceived as influencing patient safety.

Proposed Model for a Healthy Work Environment and its Impact on Patient Safety

This study supports the use of the HWE model in healthcare settings. (See Figure 3). The model is suitable for application in acute care settings where nurses face many challenges. The proposed model incorporates the themes that emerged from the grounded data. The study adopted a grounded theory approach to explore the factors that shape a healthy working environment in acute care settings. This assisted in exploring the personal experiences of nurses with regards to an HWE. This HWE model is based on the concrete findings of the factors that influence HWE and how it can be improved in healthcare settings.

The model reflects the relevance of communication within healthcare settings in promoting an HWE. It demonstrates that communication between nurses and nurse leaders reduces medication errors, since the professionals share ideas. The HWE model also proposes that teamwork and collaboration between healthcare professionals are important in promoting patient care and creating a satisfying work environment for nurses. Use of a grounded theory approach assisted in understanding the roles of nurses in cultivating an HWE in healthcare settings. Unit-based council and huddle programs make nurses more involved in their units therefore, making the work easier and less stressful.

The HWE model shows that nurses should work in collaboration with nurse managers and supervisors to ensure the work environment is flexible in terms of enough

staffing. It is evident that support from the leaders, smooth workflow, and enough space in the healthcare environment improves an HWE, which is essential in improving patient care.

The HWE model also demonstrates the influence of poor communication, short-staffing, and micromanagement on medical errors. Lack of effective communication leads to inaccurate health information, and this puts the patients at higher risk of medical errors. Short-staffing leads to overworking of nurses in the healthcare settings due to administrative demands; this also increases the risk of medical errors. Micromanagement in the work environment influences patient safety and medication errors. Nurses feel comfortable in a working environment where there is no micromanagement from the nurse leaders. They feel less stressed, and this reduction in stress intuitively is related to decreased medical errors.

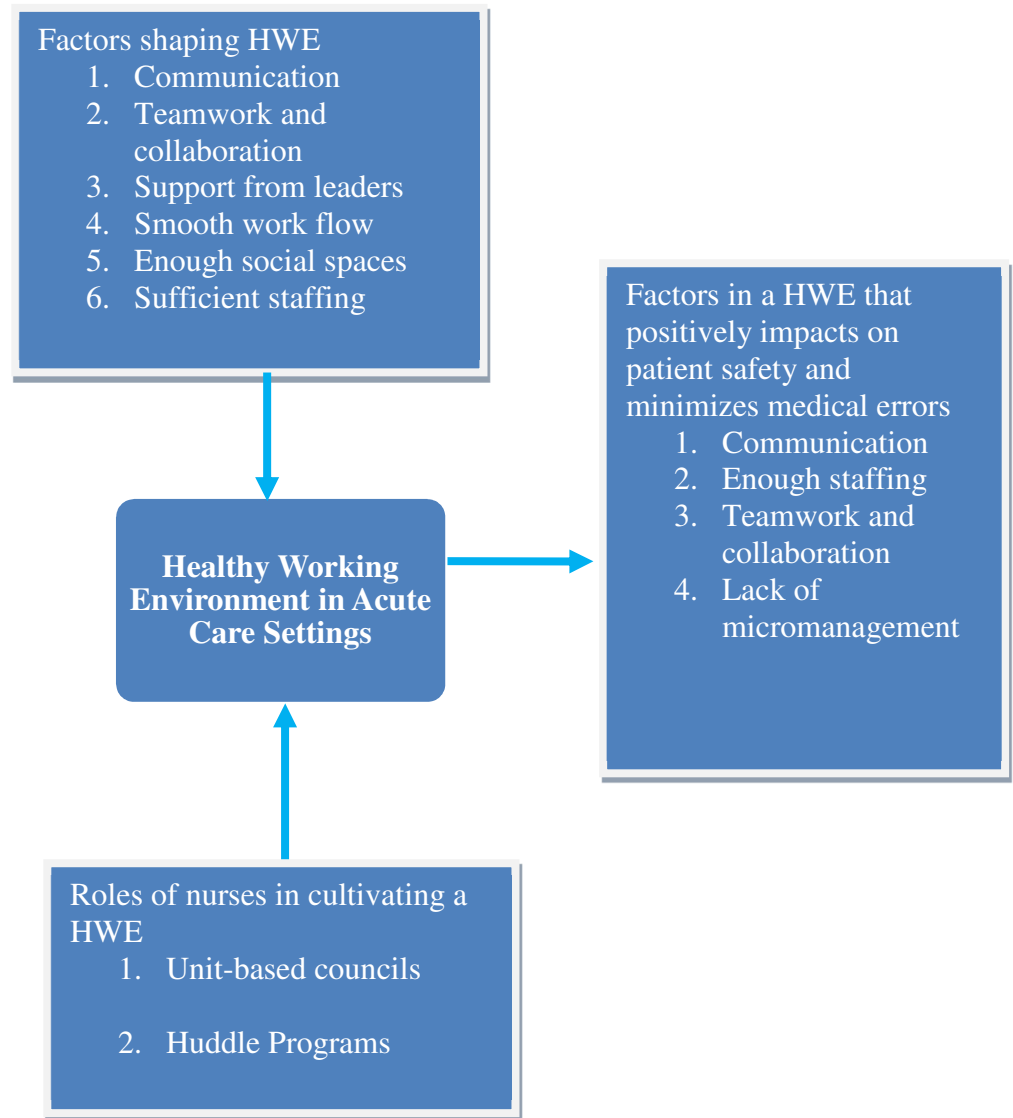


Figure 3. HWE Model

CHAPTER V

Discussion

The overall purpose of this qualitative study was to explore the perceptions of RNs in acute care settings regarding the processes that shape an HWE and the effects on patient safety. This qualitative study used a grounded theory approach. Research Question #1 addressed the perceptions of RNs in acute care settings regarding the processes that shape an HWE. Two primary themes emerged during the analysis and were categorized as: 1) communication with the healthcare settings, 2) team and collaboration. Under the two identified themes, four primary subthemes emerged from the analysis and they included, 1) communication with the healthcare settings, 2) team and collaboration, 3) nurses assist in cultivating a healthy working environment in the healthcare settings, and 4) five things that can be done to improve the working environment in the acute care settings.

Research Question #2 addressed the perceptions of RNs regarding the effects of HWE on nurses and patient safety. Two primary themes emerged from the analysis: 1) the healthcare work environment influences the occurrence of medical errors, and 2) the healthcare environment influences patient safety. From the two themes, further analysis was done to identify subthemes, and nine subthemes were found. The subthemes were categorized as: 1) the rush of getting everything altogether, 2) the lack of communication, 3) short-staffed, 4) micromanagement, 5) the healthcare environment influences patient safety, 6) the way that it's done seems to backfire, 7) communication, 8) enough nursing staff, and 9) teamwork and collaboration.

In this chapter the findings of the study are discussed with relationship to the

current literature. The limitations of the study and the implications of the study are also presented.

Discussion of the Findings

Research Question #1

What are the perceptions of registered nurses in acute care settings regarding the processes that shape a HWE?

Communication with the healthcare settings. According to Blake et al. (2013), poor communication within the workplace has adverse effects on the outcomes of patients. Such healthcare settings are characterized by many surgical errors and high mortality rates. According to Duffield and colleagues (2011), HWE is associated with improved communications and increased reporting of errors. In the study, the first thematic label was determined from two invariant constituents. See Table 2. The subthemes central to the first research question are as follows: a) communication with the healthcare settings influences HWE, and b) communication is pretty good. Most participants said that communication with the healthcare settings influenced HWE. These findings support the results obtained from the study conducted by Blake et al. (2013) which showed that communication in the HWE provide positive working relationships among the nursing staff.

Findings from a study done by Janakiraman et al. (2011) provide insight into the effect of communication with healthcare settings on HWE. The study found that 60% of poor communication is the main cause of sentinel events that are reported in nursing environments. Ineffective communication and related communication problems led to misunderstandings, wrong information, or loss of information.

Team and collaboration. Teamwork and collaboration help healthcare organizations to minimize errors (Kramer et al., 2012). Kramer et al. (2012) conducted a study to examine the relationship between the healthcare unit's environment and retention of the RNs. The study involved an evaluation of the retention rate of new RN graduates in 28 different hospitals. The results revealed that education and the population of patients had no effect on the retention rate of the new graduates. However, the work environment had an impact on the retention rate, as the new graduates placed in healthcare settings that required improvements showed a high rate of resignation than those placed in HWEs (Kramer et al., 2012).

According to Blake et al. (2013), physicians are more domineering and do not consider themselves as part of a larger healthcare team, which demotivates nurses. Blake et al. (2013) argued that physicians tend to look down on nurses' work and that hinders the effective teamwork and provision of a quality healthcare. An unhealthy environment is characterized by some of the members portraying intimidating behaviors. Such a negative environment decreases the nurse's morale and leads to a high turnover in the workplace. Besides, the patient's safety is not guaranteed in this particular healthcare setting. Collaboration, teamwork, and the work environment are linked to the healthcare organization's leadership and management (Blake et al., 2013).

In this study, the second thematic label was determined from two subthemes. The subthemes central to the theme are as follows: a) team and collaboration influence HWE in healthcare settings and b) team and collaboration are important. Most participants said that team and collaboration influenced HWE in healthcare settings. These findings support the results obtained from the study performed by Kramer et al (2012) and Blake

et al. 2013).

Data from a study done by Martinez et al. (2015) provided insight into the impact of team and collaboration on HWE. According to Martinez et al. (2015), lack of teamwork, as well as rudeness and disrespect, have adverse effects in the healthcare settings as they increase the chances of errors and other unsafe patient care practices. In the healthcare setting, most of the hierarchical models are structured in such a way that that subordinates cannot question their leaders. The chain of command determines how team members communicate and has an effect on the patient outcome (Martinez et al., 2015). The perceptions of the team members and the possession of varying teamwork skills are other factors that hinder effective teamwork (Martinez et al., 2015).

Nurses assist in cultivating a healthy working environment in the healthcare settings. Djukic et al. (2013) conducted a study to examine factors other than staffing that are related to patient quality care ratings by the nurses. A cross-sectional study was used to collect data from registered nurses in the US and logistic regression was used to analyze the data. The findings indicated the nurse and physician relationship, workgroup cohesion, organizational constraints, and physical work environment are the other factors that influence quality care. In the study, the third thematic label was determined from four subthemes. These are: a) unit-based councils, b) some programs, c) suggestions, and d) I don't really involve much. Most participants said that they had unit-based councils to assist in cultivating a healthy working environment in the healthcare settings. These findings were consistent with the study results obtained by Djukic et al. (2013).

Another study done by Barnes and Lefton (2013) provided insight on some programs to assist in cultivating an HWE in the healthcare setting. The study reveals

nurses may feel more fulfilled in their profession if the organizational structure is changed to enhance independent practice environments, recognition of professional status, and provision of financial incentives. The uneven distribution of nurses and the nurse shortages make the nurses more stressed, increase workload, and promote failure of nurses to perform their duties to their very best (Tucker et al., 2010). These factors occur due to poor work conditions, which have a huge impact on patient outcomes. In addition, nurses need continuous training to acquire new skills to work effectively in their work environment.

Research Question #2

What are the perceptions of RNs regarding the effects of HWE on nurses and patient safety?

The healthcare work environment influences the occurrence of medical errors. Vincent et al. (2015) described the importance of using evidence-based practice to improve the quality of care. A healthcare setting should foster evidence-based practice to reduce medical errors. Evidence-based practice is dependent on the policies, procedures, and the work environment of a health care organization (Vincent et al., 2015). Kelly et al. (2013) conducted a cross-sectional study that assessed the healthcare environment and the frequencies of pneumonia, urinary tract infections, and central catheters infections. The study used logistic regression models to determine if the work environment was predictive of the occurrences of infections. The findings of this study revealed that nurses in healthy working conditions reported minimal cases of patient healthcare infections.

In this study, the fourth thematic label was determined from four subthemes

(Table 6), and are as follows: a) the rush of getting everything all together, b) the lack of communication, c) short-staffed, and d) micromanagement. Most participants said the rush of getting everything all together influenced the occurrence of medical errors. These finding support the findings of the Vincent et. al. (2015) study. In addition, these finding support the findings of the Kelly et al. (2013) study.

The findings from the study done by Thomas and Classen (2014) provided insights into the impact of the healthcare work environment on the occurrence of medical errors. Thomas and Classen (2014) explained that errors can result from system factors resulting in immediate events or latent factors such as workload, the organizational structure, and the work environment. Nurse leaders and staff can create latent factors in the scheduling, lack of adequate training, and use of outdated equipment. As such, healthcare organizations should adapt an environment that addresses these latent factors defects that are the root cause of errors in an organization (Kramer et al., 2014).

The health care environment influences patient safety. A team of scholars forming part of the AHRQ's research portfolio described aspects of the organizational climate and its relationship with the patient safety and its workers (Aboneh et al., 2015). The team tested the model under different settings including ambulatory care, long-term care, and acute hospitals. The authors identified important structures of an organization such as the leadership and infrastructure, the processes such as work design, supervision, quality emphasis, and group behaviors. The model formed a framework to review the organizational climate on the outcome of employees and patients.

Kieft et al. (2014) conducted a cross-sectional study to investigate the relationship between the nurse's work environment and patients' experiences. The authors used data

from the HCAHPS survey on patients' experiences in the healthcare setting. The PES-NWI instrument was used to measure the work environment of nurses that consisted of leaders and the nurse/physician relationship (Lake, 2002). The findings revealed the work environment has a significant influence on patients' experiences in relation to quality care.

In this study, the fifth thematic label was determined from four subthemes (Table 4), and are as follows: a) the healthcare environment influences patient safety, b) the way that it's done seems to backfire, c) communication, d) enough staffing, and e) teamwork and collaboration. Most of the responses from the participants of this study supported the results from the research conducted by Aboneh et al. (2015) and Kieft et al. (2014), which revealed the healthcare environment influenced patient safety.

Kieft et al. (2014) provides insight into the impact of the healthcare environment on patient safety. In their study, 95,499 nurses in 428 hospitals participated. The researcher used HCAHPS and the PES-NWI and the findings showed that nurses' lack of satisfaction in the work environment was related to the experiences of patients to quality care. The results also showed that both patients and nurses had positive experiences in healthcare settings that had better work environments. In addition, Aiken et al. (2012) conducted a study to evaluate the impact of the healthcare environment on patient safety. A cross-sectional study of medical-surgical nurses in different states in the US was conducted (Aiken et al., 2012). The study assessed the work environments in hospitals and the relationship with quality care so as to come up with strategies to retain nurses in the healthcare setting. The findings revealed that a nurse's workload, skill mix, job advancement, and wages were some of the factors that had an influence on healthcare.

The nurses from different states had the same concern on availability of resources and workforce management in the healthcare setting. An HWE challenged the nurses to use their skills, expertise, and clinical knowledge in their nursing practice (Aiken et al., 2012).

Summary

In this study, the first thematic label was determined from two subthemes (Table 2), and are as follows: a) Communication within the healthcare settings influences HWE, and (b) communication is pretty good. Most participants said that communication in healthcare settings influenced HWE. This supported the findings Aiken et al. (2012), which showed that effective communication in healthcare organizations enhanced an HWE.

In this research, the second thematic label was determined from two subthemes: a) team and collaboration influence HWE in healthcare settings, and b) team and collaboration are important. Most participants said that team and collaboration influenced HWE in healthcare settings. These finding support the findings of the above studies.

The third thematic label was also determined from four subthemes: a) unit-based councils, b) some programs, c) suggestions, and d) I am not really involved much. Most participants supported the information provided in previous studies and they responded they had unit-based councils to assist in cultivating an HWE in the healthcare settings.

Four subthemes were also used to identify the interview responses as provided in Table 6. The subthemes that were identified included a) the rush of getting everything all together, b) the lack of communication, c) short-staffed, and d) micromanagement. Most of the responses were consistent with other studies provided in the literature review and

revealed the rush of getting everything all together influenced the occurrence of medical errors.

In this study, the fifth thematic label was determined from four subthemes as presented in Table 7, and include: a) the healthcare environment influences patient safety, b) the way that it's done seems to backfire, c) communication, d) enough nursing staff, and e) teamwork and collaboration. The identified themes supported the findings of other studies on the same topic. Most participants said that the health care environment influenced patient safety.

Limitations of the Study

Due to the qualitative nature, the study was limited by factors that are inherent in qualitative research. These include the researcher's personal biases and idiosyncrasies, which may influence the credibility of the study findings. Additionally, it is more challenging to achieve rigor in qualitative research, however, credibility, dependability, and transferability were achieved (Yin, 2014). Credibility was achieved by making sure the findings showed the perceptions of RNs (Leedy & Ormrod, 2016). The member-check procedure was used when the researcher submitted the relevant material to the participants (Yin, 2014). Nurses were asked to participate in the research. The participants were provided a written informed consent and they signed the form to show their agreement with taking part in the study.

The qualitative nature of the study may have limited the generalizability of the study findings. However, transferability was achieved by ensuring that the sample (nurses) represented the target population (Leedy & Ormrod, 2016). The participants of

the study were nurses; therefore, the sample was most appropriate for examining the perceptions of nurses in the study.

Implications for Nursing

Clinical practice

The findings of the current study have several implications for clinical practice. The study is directly relevant to clinical practice as its data regarding the effects of HWE on nurses and patient safety are strongly suggestive that an HWE is important for reducing errors. Data from this study suggest supportive leadership and adequacy of nursing staff levels are essential elements in ensuring patient safety. While the study constitutes a first step in exploring this area, its findings can form the basis for future studies regarding further investigation into best practices for determining skills mix and leadership styles in specific settings, particularly the acute care setting. Data from this study may be used as part of case analysis of actual situations in the clinical setting in which such factors as poor communication and increased error rates are occurring. Finally, these data suggest the need for improved training for nurses in order to achieve an HWE.

Healthcare leadership

The findings of the current study have several implications for healthcare leadership. Healthcare leaders may use the results from this study in developing instruments that allow them to examine the importance of HWE to nurses. While the development of valid and reliable instruments is a complex, lengthy process, the findings from this study suggest the inclusion of such factors as communication, teamwork, and collaboration are factors to consider in the design of future survey instruments in this

area. The perceptions of nurses on the effects of HWE can be used as the foundation for the adoption of diverse strategies for creating a conducive HWE. This study can add to the body of knowledge on the effects of HWE on nurses and patient safety and provides an opportunity for healthcare leaders to take better strategic steps in terms of motivating nurses to their advantage.

Recommendations for Future Nursing Research

Future research in this area may focus on the relationships between the salient factors identified in this study, including presence of HWE, communication, and collaboration. The use of a longitudinal research design to examine the impact of HWE on cohorts of nurses entering the profession might yield useful results. In addition, studies may be conducted to evaluate the degree of the influence of HWE on nurses across settings and patient populations. Future quantitative research can be developed to define more precisely the impact of HWE on specific patient outcomes, including post-discharge Emergency Department (ED) use and 30-day re-admission rates. It also would be useful to examine the impact of HWE on specific populations, such as across racial and ethnic categories, including minority patients, which current research suggests are at a higher risk for increased medical errors and poor post-hospitalization outcomes.

Another population at risk for poor healthcare outcomes is the growing number of immigrants to the US, many of whom face challenges in communicating with health care providers. A quantitative study could also be carried out to examine the impact of HWE on immigrant patients' outcomes across populations. Ultimately, a trajectory of research that establishes the significant factors shaping a HWE and their relationship to the phenomena identified in this study, e.g., degree of communication and collaboration,

could provide a testable model for the creation of highly-healthy/low risk healthcare environments.

Conclusion

This study was conducted to evaluate the perceptions of registered nurses on the processes that shape an HWE and the effects of HWE on nurses and patient safety. The interview responses from the selected participants were consistent with the existing findings of other studies in the literature. The findings provide clear insights on the topic under investigation that are of salience to nurses in any healthcare setting. These perceptions from nurses may help researchers to plan for effective strategies or processes that improve HWE and enhance nurse and patient safety. Additionally, data from this study may form the basis for future research that assists policy makers in developing policies that empower nurses to deliver a higher level of quality and safe care to patients.

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Appendix A: Demographic Data Form

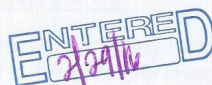
Please answer the following questions:

1. What is your age?
2. Gender
3. How many years have you worked as an RN?
4. What was your initial degree as an RN?
5. What is your highest nursing degree?
6. What is your current employment status?

Appendix B: Interview Guide

1. How would you describe a HWE in a health care setting?
2. Would you characterize your working environment as healthy?
3. If yes to 2 above, what makes your working environment healthy?
4. If no to 2 above, what makes your working environment, unhealthy?
5. In your opinion, how does communication with the healthcare settings influence HWE?
6. How does team and collaboration influence HWE in healthcare settings?
7. How are you as a nurse involved in decision-making in your acute care setting?
8. In your opinion, how does the health care work environment influence the occurrence of medical errors?
9. How would you describe the leadership in your acute care settings?
10. What do you think is the major cause of errors in the hospitals?
11. In your opinion, how does the health care environment influence patient safety?
12. How can nurses assist in cultivating a healthy working environment in the healthcare settings?
13. What can be done to improve the working environment in the acute care settings?

APPENDIX C: USD IRB

**Institutional Review Board
Project Action Summary**

Action Date: February 29, 2016 *Note: Approval expires one year after this date.*

Type: ☐ New Full Review ☒ New Expedited Review ☐ Continuation Review ☐ Exempt Review
☐ Modification

Action: ☒ Approved ☐ Approved Pending Modification ☐ Not Approved

Project Number: 2016-02-131

Researcher(s): Nicole Sevilla-Zeigen Doc SON
Dr. Jane Georges Fac SON

Project Title: A Grounded Theory Approach to Healthy Work Environment: Its Impact on Nurses, Patient Safety and Significance in Healthcare Settings

Note: We send IRB correspondence regarding student research to the faculty advisor, who bears the ultimate responsibility for the conduct of the research. We request that the faculty advisor share this correspondence with the student researcher.

Modifications Required or Reasons for Non-Approval

None

The next deadline for submitting project proposals to the Provost's Office for full review is N/A. You may submit a project proposal for expedited review at any time.

Dr. Thomas R. Herrinton
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